

WHAT IS CLAIMED IS:

1. A semiconductor device comprising:
a semiconductor substrate;
5 at least one dielectric film arranged on the substrate
and having an opening;
a conductive portion filling the opening; and
at least one dielectric member embedded in the
conductive portion that fills the opening.

10 2. The semiconductor device according to claim 1,
wherein the at least one dielectric member is arranged in an
island-like manner in the opening.

15 3. The semiconductor device according to claim 1
having a multilayer wiring structure including a lower
wiring layer, which is arranged on the semiconductor
substrate, wherein the conductive portion is formed in the
lower wiring layer.

20 4. The semiconductor device according to claim 1,
wherein the conductive portion includes an external
electrode terminal.

25 5. A method for manufacturing a semiconductor device
comprising:

forming an opening in a dielectric film arranged above
the semiconductor substrate so as to leave a dielectric
projection in the opening;

30 filling the opening with a metal; and
flattening the surface of the metal using the upper
surface of the dielectric film as a stopper.

6. A semiconductor device comprising:
a semiconductor substrate;
at least one dielectric film arranged on the substrate
and including an upper surface, a lower surface, and an
5 opening;
at least one dielectric member arranged in the opening;
and
a conductive portion filling the opening so as to
surround the at least one dielectric member.

10 7. The semiconductor device according to claim 6,
wherein the dielectric member has a height that is the same
as the thickness of the dielectric film.

15 8. The semiconductor device according to claim 6,
wherein the dielectric member has an end flush with the
upper surface of the dielectric film and a further end flush
with the lower surface of the dielectric film.

20 9. The semiconductor device according to claim 6,
wherein the at least one dielectric member is one of a
plurality of separated dielectric members.

25 10. The semiconductor device according to claim 6,
wherein the conductive portion has a flat surface flush with
the upper surface of the dielectric film.

11. A method for manufacturing a semiconductor device
comprising:

30 forming a dielectric film arranged above a
semiconductor substrate;

forming an opening in the dielectric film so as to
leave a dielectric projection in the opening by removing

part of the dielectric film;

filling the opening with a metal; and

flattening the metal so that the upper surface of the
dielectric film is flush with the upper surface of the

5 metal.